

Technical Session for Municipal Councillors

New Emerging Trends in Parking

UMI 2016- 11th November 2016

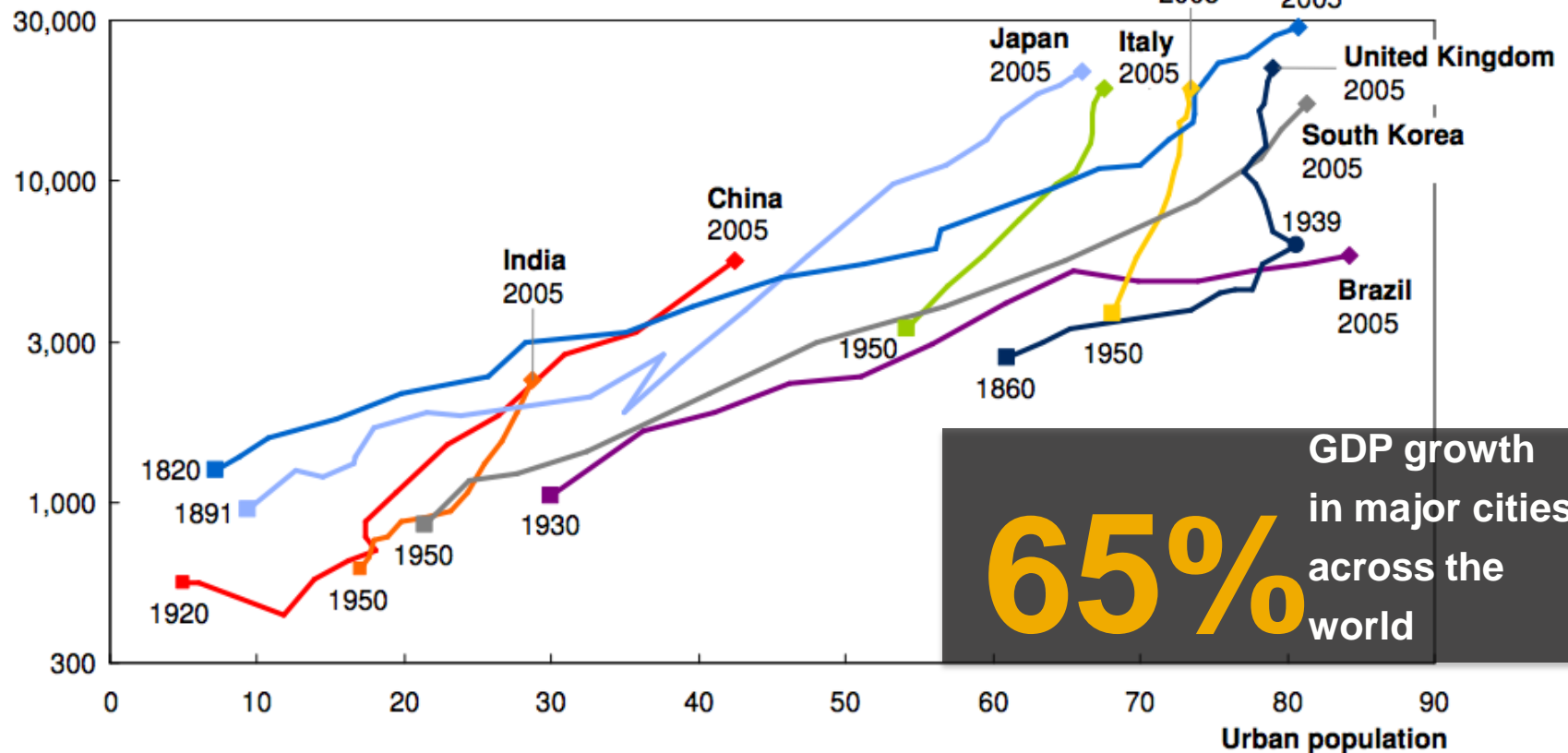
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Cities are engines of growth and prosperity

Per capita GDP and urbanization¹

Per capita GDP

1990 PPP \$ (log scale)²

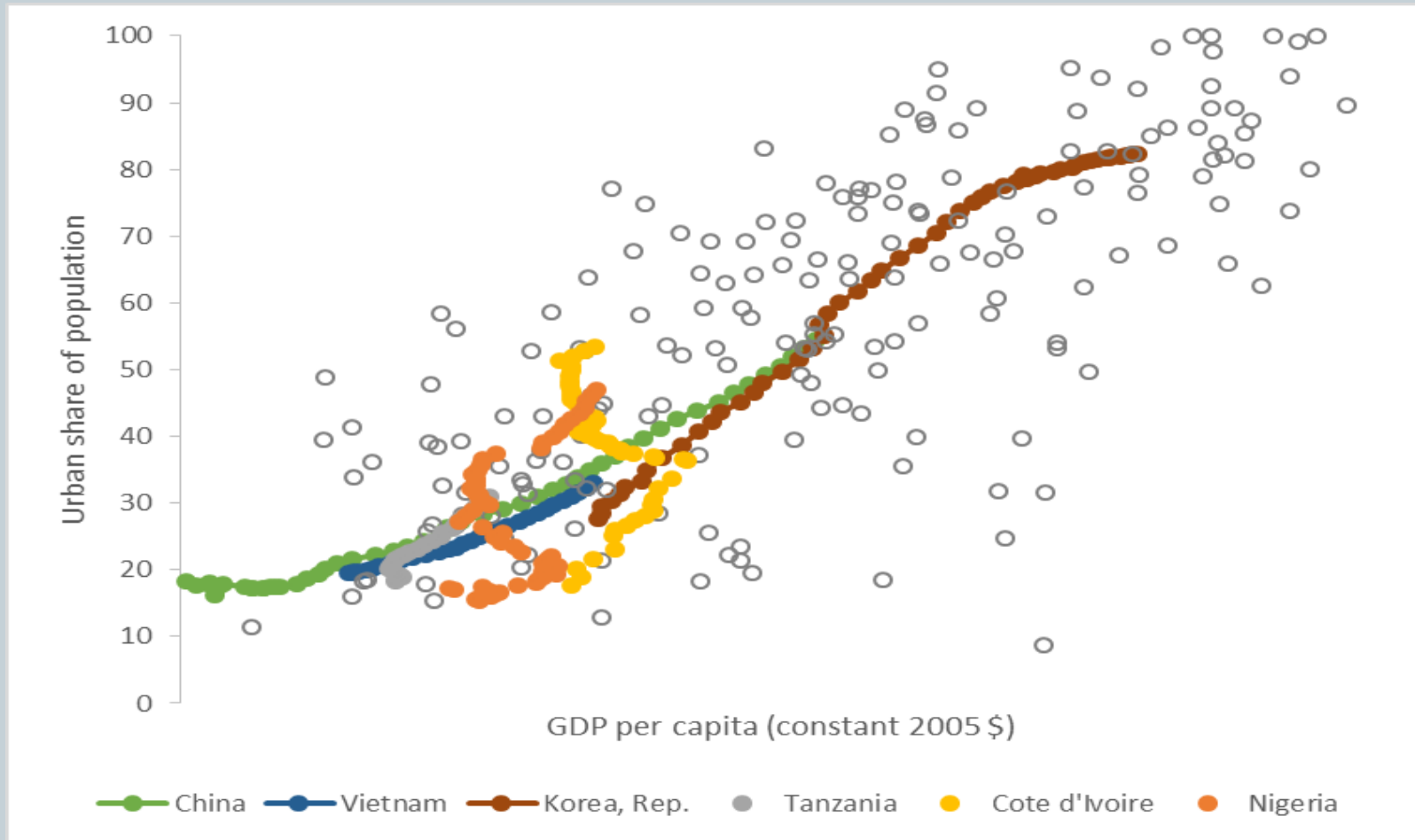


GDP growth in major cities across the world

65%

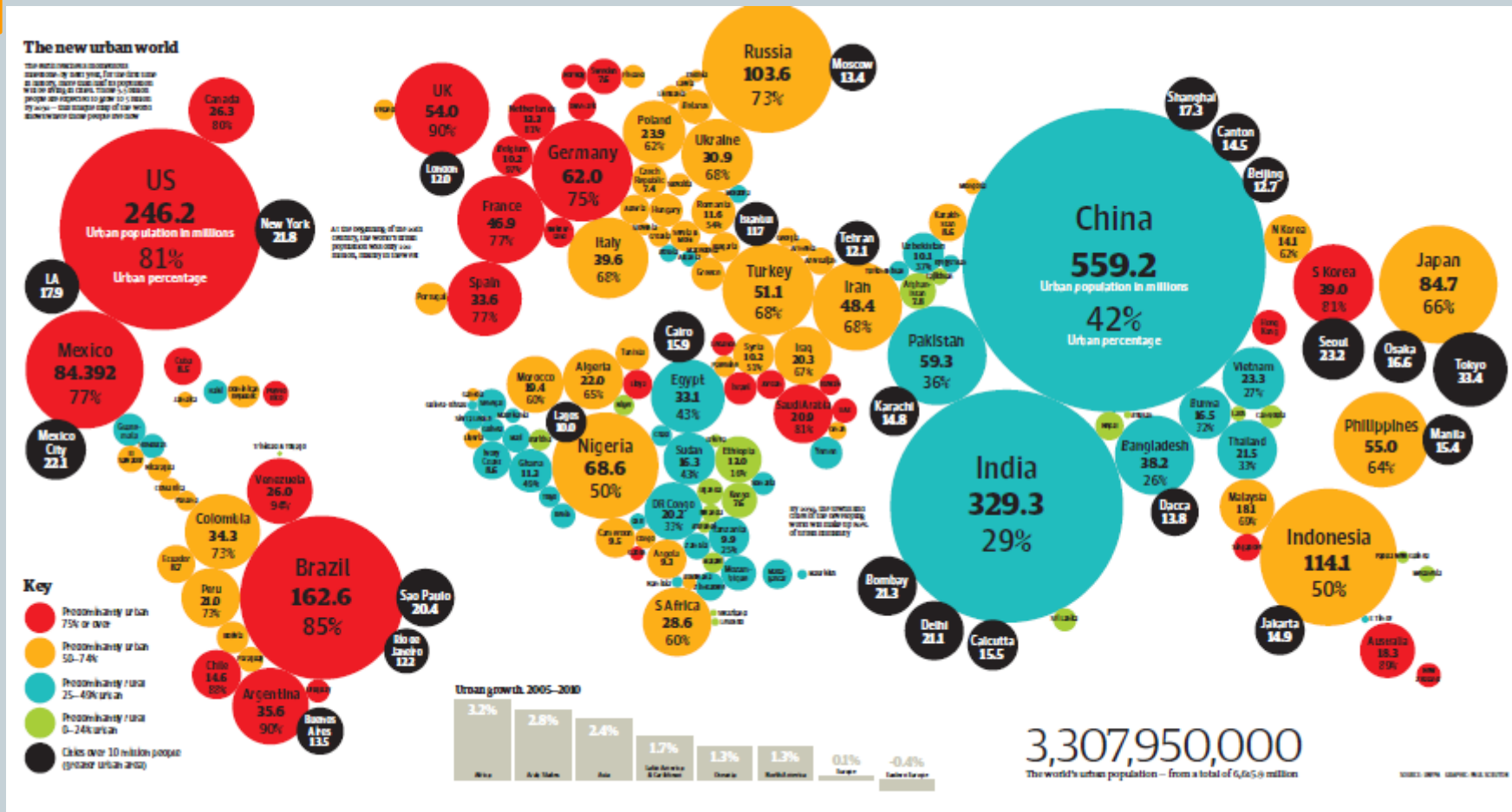


Urbanization usually goes hand-in-hand with growth, but not always



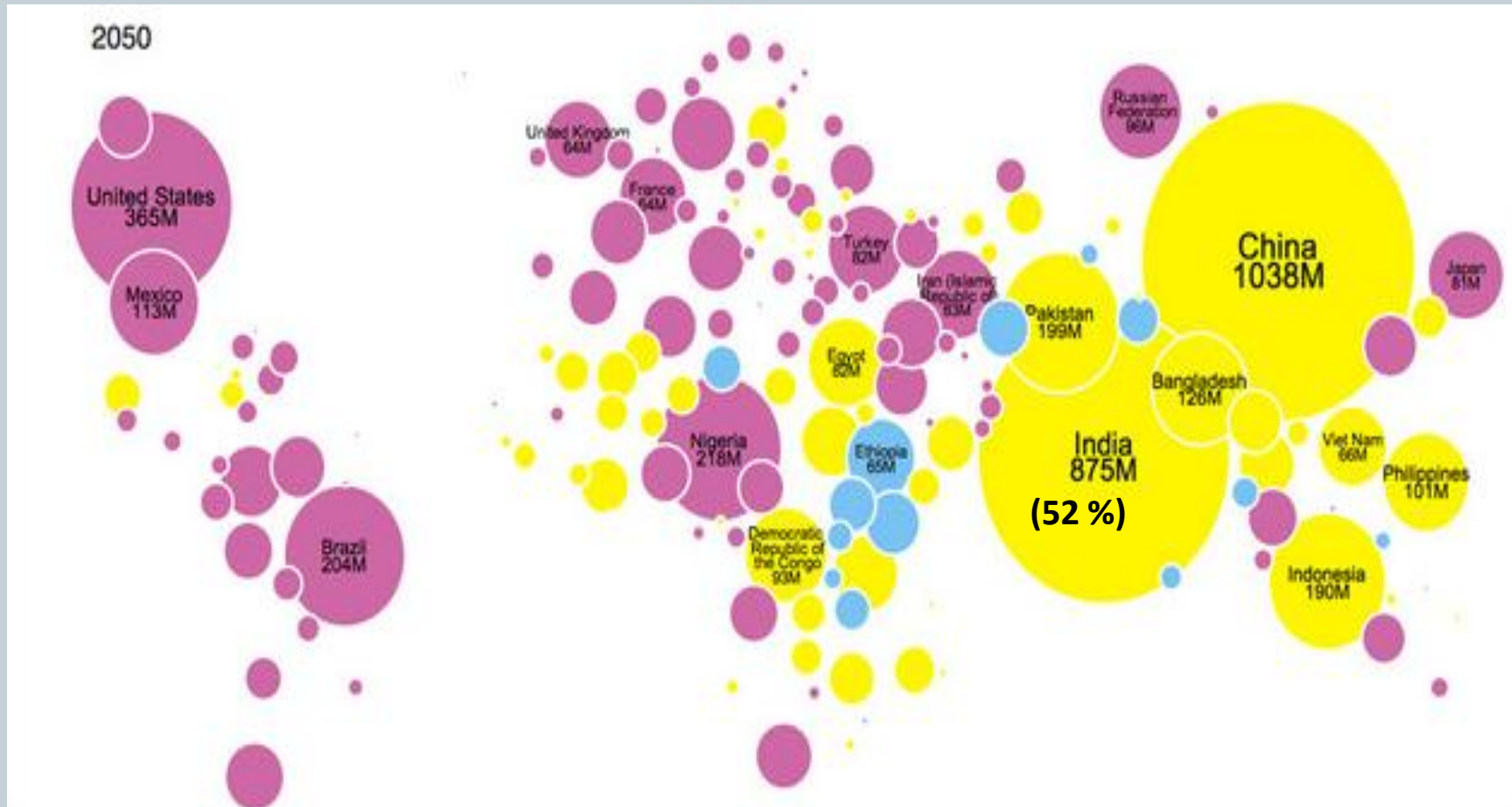
Global Urbanization- 2010

Source: UNFPA



Global Urbanization- 2050

Source: UNICEF





2011...

1 billion



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Tom Toles—Buffalo News

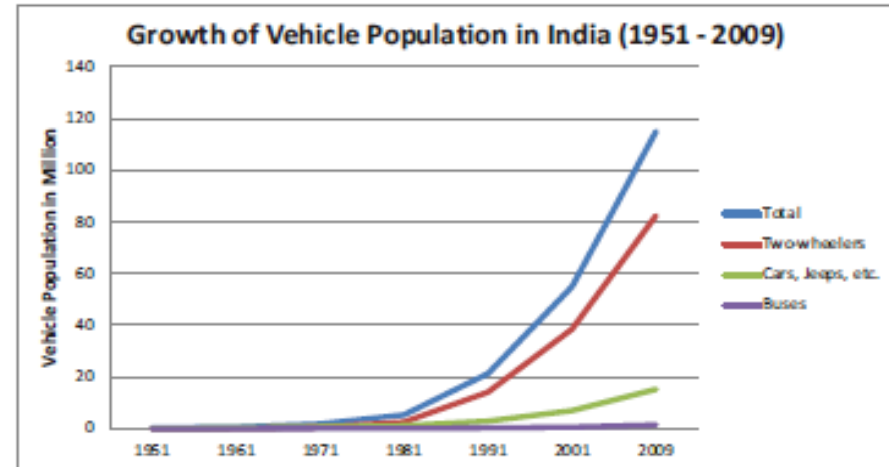
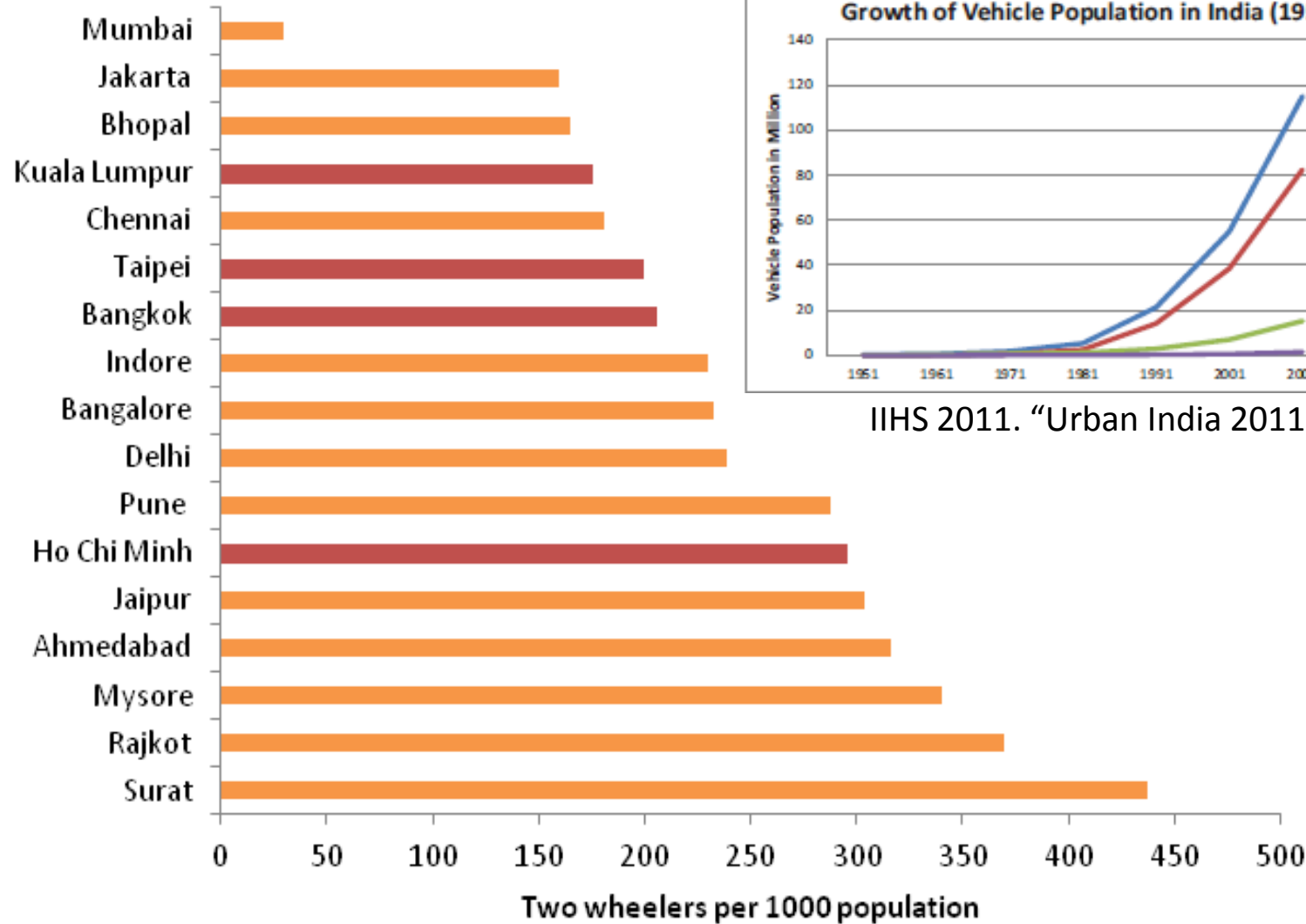
10 years later....

1 billion +1 billion



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Urbanization is coupled with motorization



IIHS 2011. "Urban India 2011: Evidence"

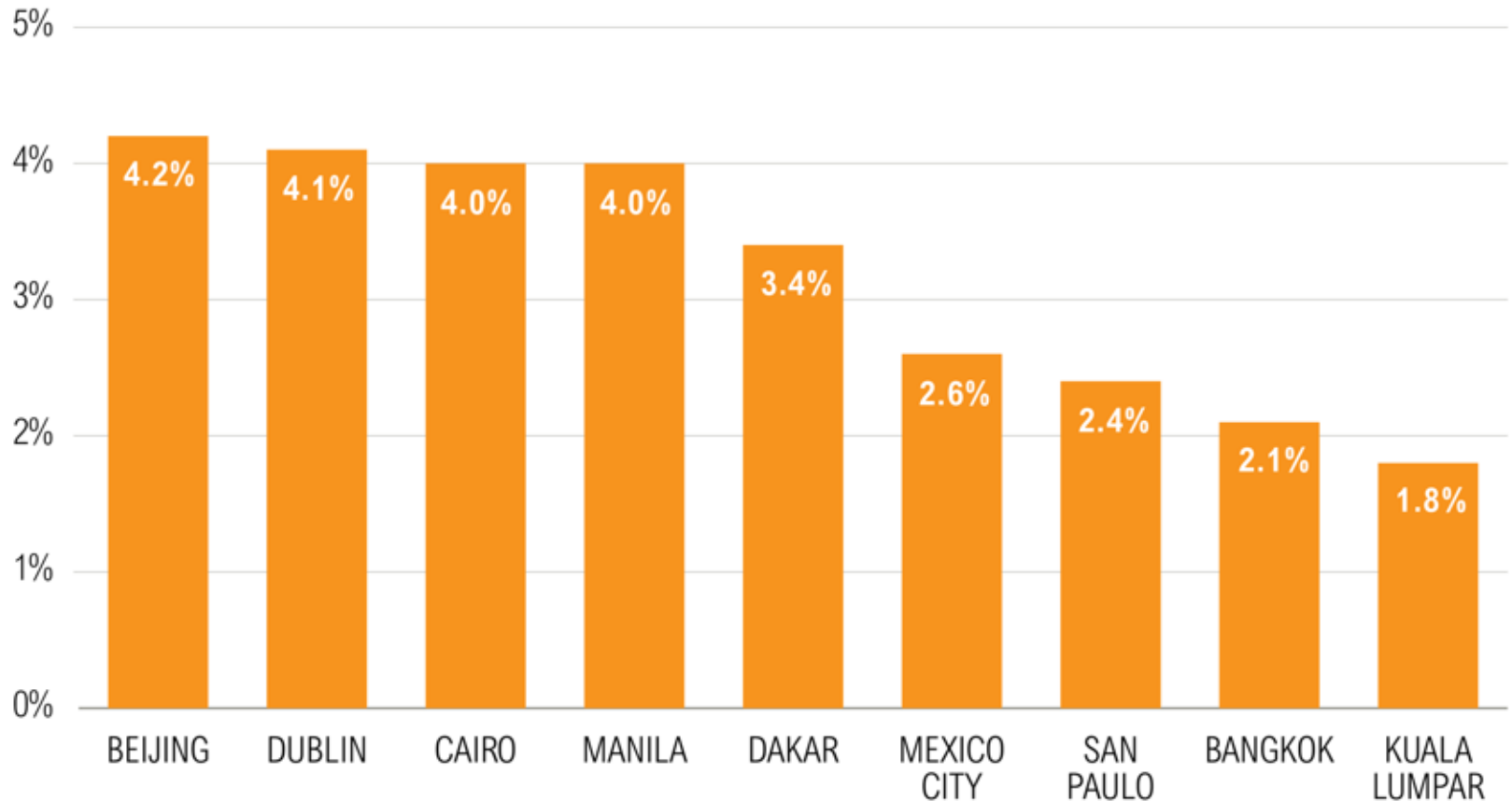
Pai, M. 2010. "India Urban Transport Indicators"

Congestion in cities



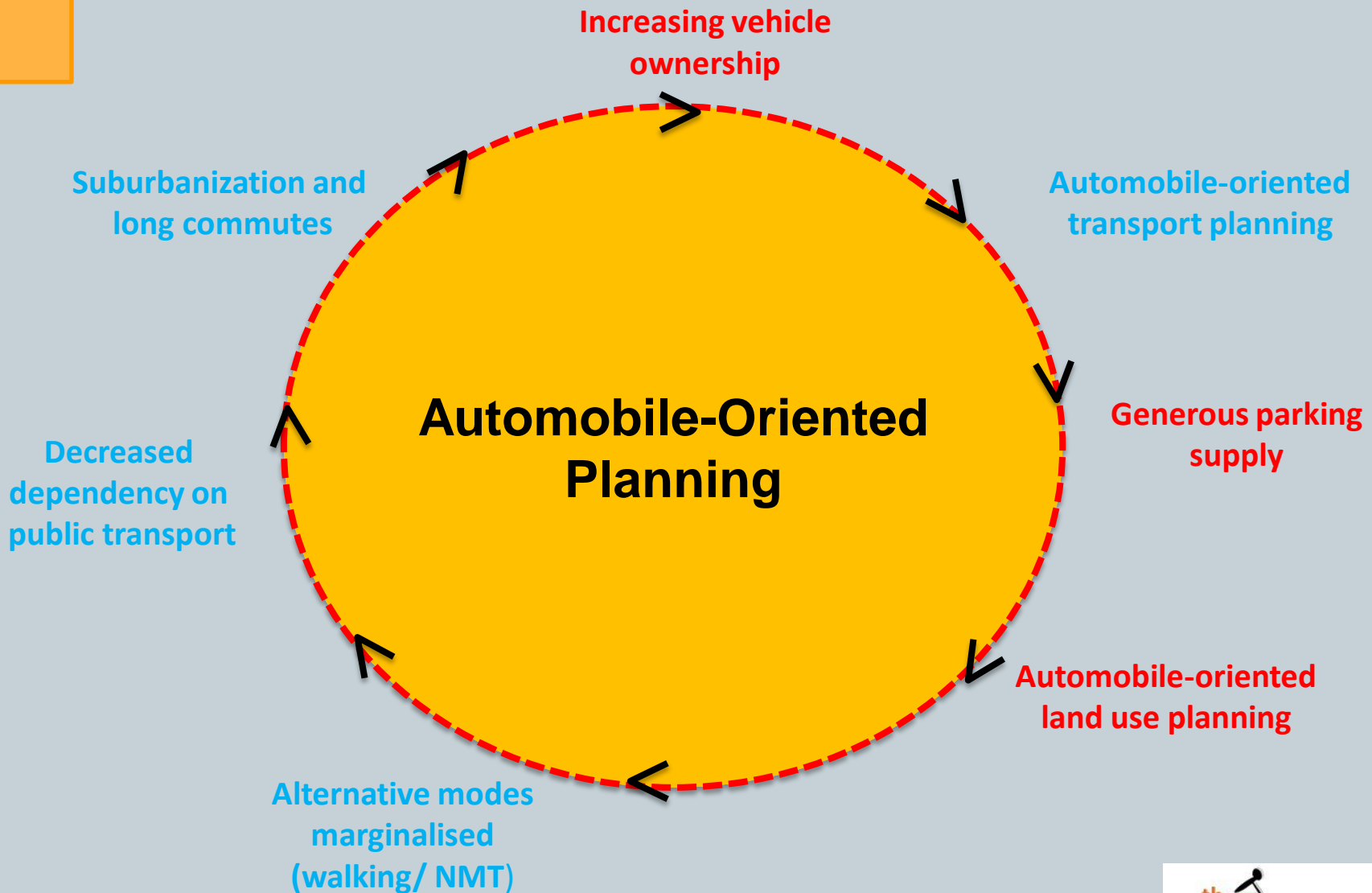
Traffic congestion impacts productivity

COST OF TRAFFIC CONGESTION AS A PERCENTAGE OF GDP IN SELECTED CITIES



Sources: IBM Institute for Business Value, Smarter cities for smarter growth. Li-Zeng Mao, Hong-Ge Zhu, and Li-Ren Duan (2012) The Social Cost of Traffic Congestion and Countermeasures in Beijing. Sustainable Transportation Systems: pp. 68-76.

Vicious cycle



Current approach...

- Ineffective management of on-street parking
- Provide enough supply to cater to demand
- Create multi-level car parking lots



Streets turning into parking lots...



Photo Credit: EMBARQ India



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Parking lots are full...



Multi level parking lots are unused

Parking lots are empty and free-for-all on road

Risha Chitlangial TNN | Aug 11, 2015, 07:18 AM IST



A-

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Multi-level parking: IMC undeterred by failure

DNIND11042 | 6/14/2012 | Author : DNA Correspondent | WC :238

DDA multi-level parking lots have no takers

Orbit Mall, near Zoo, behind Mangal City shopping mall and two other spots. Tenders are approved for 4 spots and for remaining two spots tenders will be floated soon. Around three years ago, the IMC had started multi level parking in 20 crowded markets under JNNURM to decongest traffic. Four sites were selected for the project at Subhash Chowk Shivaji Market, near Premukh cinema at Jawahar Marg and

Photo Credit: Google Images



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We need to rethink parking

- Parking plays an important role in shaping our cities
 - Parking can incentivize private transport demand
 - Effective parking can be used for demand management
- There is a disruption happening in the transport industry



Innovation in shared mobility



Shared mobility is changing the ownership and usage of private vehicles



Impact of shared mobility

Anand Mahindra says Uber, Ola could eat into auto sales

PTI | Pune, September 11, 2015 | UPDATED 11:28 IST



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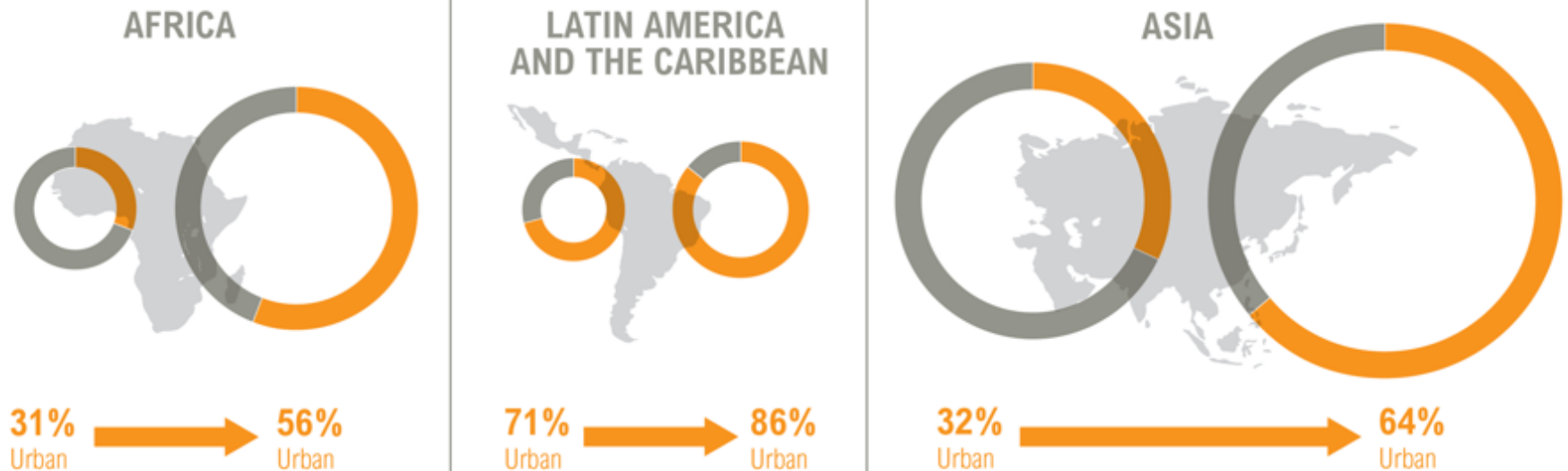
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Uber CEO Travis Kalanick: soon, nobody will own a car

60% of the 2030 global building stock is yet to be built



Percent Population in Urban Areas **1990**
Percent Population in Urban Areas **2050**

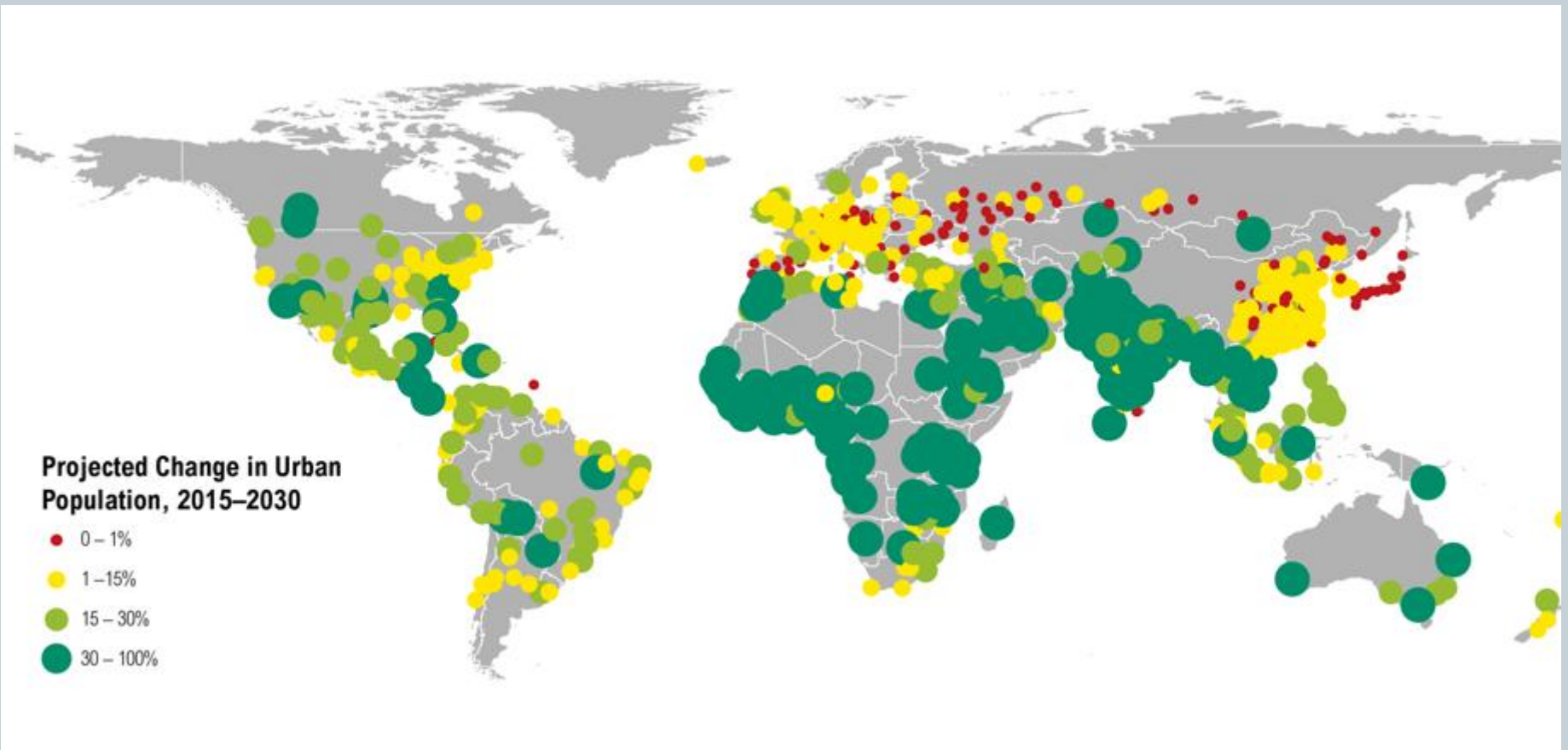


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Source: NASA Image. UN World Population Prospects.
2009. UNFCCC

Growth mostly in Africa and South Asia (2015-2030)



(N=769 cities)



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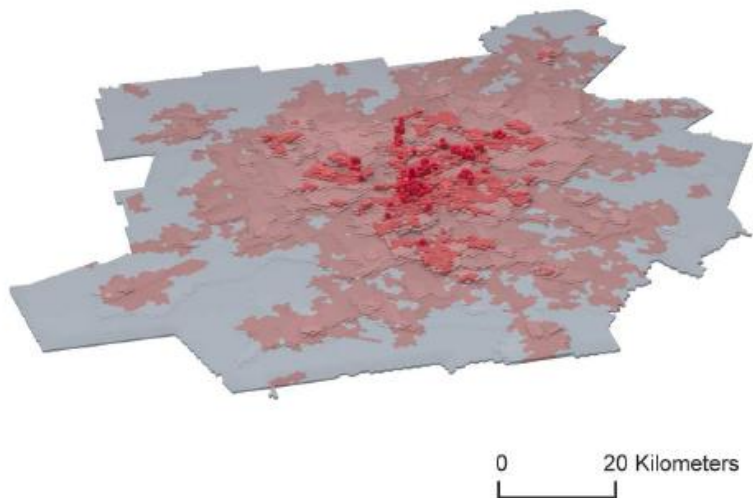
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Source: Oxford Economics

Compact cities: healthier and safer

ATLANTA

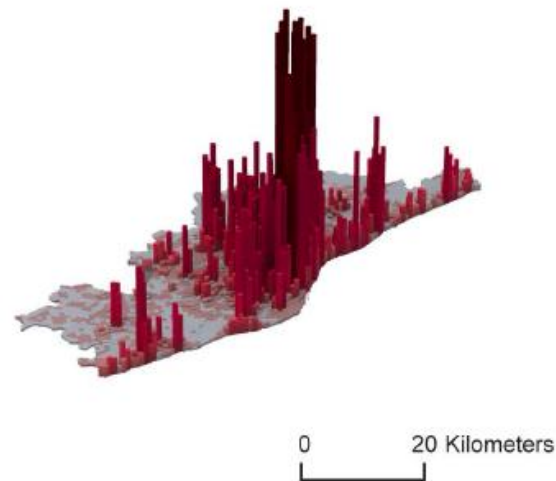
Atlanta's built-up area



Population: 5.26 million
Total area: 16,605 km²
Urban area: 7692 km²
Transport emissions: 6.9 tonnes CO₂ p.c.
Traffic fatalities: 564 per year

BARCELONA

Barcelona's built-up area



Population: 5 million
Total area: 3263 km²
Urban area: 648 km²
Transport emissions: 1.2 tonnes CO₂ p.c.
Traffic fatalities: 31 per year

Source: LSE research, drawing on data from Atlanta Regional Commission (2014), Autoritat del Transport Metropolita (Area de Barcelona) (2013), GenCat (2013), UCSB (2014), D'Onofrio (2014), based on latest data.



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Alternative solutions for sustainable urban transport

- Pedestrian and bicycles
- Public transportation
- Transit oriented development
- Disincentives car use
- Cleaner and cooler fuels and vehicles



http://www.nyc.gov/html/dot/images/sidewalks/ps_rendering01.JPG

The ways forward...

- Urgent need to address parking in Indian cities
- Incremental approach is desirable
- Shift from parking minimum to parking maximum
- Use parking as revenue generation mechanism to support suitable transport
- Focus on on-street parking
- Look at off-street parking through Development Control Regulations (DCRs), TODs and urban form



Thank You

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